

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ulrich Zimmermann
Serial No. : Not yet assigned
Filed : Herewith by Express Mail
For : **CROSSLINKING IONOTROPIC GELS**
Examiner : Not yet assigned
Art Unit : Not yet assigned
Attorney
Docket No. : 414P037Div.

Assistant Commissioner of Patents
Washington, D.C. 20231
Sir:

PRELIMINARY AMENDMENT

Entry of the amendment shown on the attached Version With Markings to Show Changes Made and Replacement Sheets prior to the examination of the above-referenced case is respectfully requested:

The specification has been amended to reflect the priority application and proper reference to the Figures.


The claims 7-14 have been amended.

Claim 15 remains unchanged.

Please cancel claims 1-6 and 16.

Please add new claims 17-21.

Respectfully submitted,


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Version With Markings to Show Changes Made

In the specification:

Page 1, line 2, add the following new paragraph:

--This application is a divisional of pending Serial No. 09/627,612 filed July 28, 2000.--

Page 5, 8 lines from the bottom, delete "Figure 1 a schematic illustration" and substitute therefor --Figures 1(A), (B) and (C) schematic illustrations--.

In the claims:

7. (Amended) A gel solution [containing] comprising an ionotropic gel and a crosslinking agent [according to one of claims 1 through 6] comprising a carrier substance and counterions releasably bound to said carrier substance.

8. (Amended) A powder composition [consisting of] comprising a dried, uncrosslinked ionotropic gel and a dried crosslinking agent [according to one of claims 1 through 6] comprising a carrier substance and counterions releasably bound to said carrier substance.

9. (Amended) A method of crosslinking ionotropic gels [using] with a crosslinking agent [according to one of claims 1 through 6] comprising a carrier substance and counterions releasably bound to said carrier substance with the steps:

- providing a mixture of the gel molecule to be crosslinked and the crosslinking agent,
- forming a layered body or a volume-molded body of the mixture, and
- crosslinking the gel molecules by the external influence of a substance, temperature or radiation, which causes the counterions to be released from the carrier substance.

10. (Amended) The method according to claim [1] 9, whereby the first step of providing

said mixture comprises providing an aqueous solution of the gel molecules to be crosslinked and adding to said aqueous solution the crosslinking agent.

11. (Amended) The method according to claim 9, whereby the first step of providing said mixture comprises [includes] mixing and grinding a powder of [the uncrosslinked] said gel molecules to be crosslinked and [the] said crosslinking agent.

12. (Amended) The method according to [one of claims 9 through 11] claim 9, whereby the crosslinking is induced by UV light exposure.

13. (Amended) The method according to [one of claims 9 through 11] claim 9, whereby the crosslinking is induced by acidification.

14. (Amended) The method according to [one of claims 9 through 13] claim 9, whereby the crosslinked ionotropic gel is formed in capsule form.

16. (Cancelled)

17. (Newly added) A method for treating a wound, comprising applying to said wound a wound dressing comprising a gel solution comprising an aqueous solution of gel molecules to be crosslinked and a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.

18. (Newly added) A method for filling a cavity in a tooth, comprising applying to said tooth the powder composition of claim 8.

19. (Newly added) A transplant encapsulation, comprising biological cells encapsulated in an ionotropic gel crosslinked by a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.

20. (Newly added) A food encapsulation, comprising a food ingredient encapsulated in an ionotropic gel crosslinked by a crosslinking agent comprising a carrier substance and counterions

releasably bound to said carrier substance.

21. (Newly added) A cosmetic encapsulation, comprising a cosmetic ingredient encapsulated in an ionotropic gel crosslinked by a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.

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Replacement Sheets

In the specification:

Page 1, line 2, add the following new paragraph:

This application is a divisional of pending Serial No. 09/627,612 filed July 28, 2000.

Page 5, 8 lines from the bottom:

Figures 1(A), (B) and (C) schematic illustrations of the effect of a crosslinking agent according to this invention,

In the claims:

7. (Amended) A gel solution comprising an ionotropic gel and a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.

8. (Amended) A powder composition comprising a dried, uncrosslinked ionotropic gel and a dried crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.

9. (Amended) A method of crosslinking ionotropic gels with a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance with the steps:

- providing a mixture of the gel molecule to be crosslinked and the crosslinking agent,
- forming a layered body or a volume-molded body of the mixture, and
- crosslinking the gel molecules by the external influence of a substance, temperature or radiation, which causes the counterions to be released from the carrier substance.

10. (Amended) The method according to claim 9, whereby the first step of providing said mixture comprises providing an aqueous solution of the gel molecules to be crosslinked and adding

to said aqueous solution the crosslinking agent.

11. (Amended) The method according to claim 9, whereby the first step of providing said mixture comprises mixing and grinding a powder of said gel molecules to be crosslinked and said crosslinking agent.

12. (Amended) The method according to claim 9, whereby the crosslinking is induced by UV light exposure.

13. (Amended) The method according to claim 9, whereby the crosslinking is induced by acidification.

14. (Amended) The method according to claim 9, whereby the crosslinked ionotropic gel is formed in capsule form.

16. (Cancelled)

17. (Newly added) A method for treating a wound, comprising applying to said wound a wound dressing comprising a gel solution comprising an aqueous solution of gel molecules to be crosslinked and a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.

18. (Newly added) A method for filling a cavity in a tooth, comprising applying to said tooth the powder composition of claim 8.

19. (Newly added) A transplant encapsulation, comprising biological cells encapsulated in an ionotropic gel crosslinked by a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.

20. (Newly added) A food encapsulation, comprising a food ingredient encapsulated in an ionotropic gel crosslinked by a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.

21. (Newly added) A cosmetic encapsulation, comprising a cosmetic ingredient encapsulated in an ionotropic gel crosslinked by a crosslinking agent comprising a carrier substance and counterions releasably bound to said carrier substance.